

REMARKS

This Amendment is submitted in response to the Office Action dated March 3, 2003. In the Office Action, the Patent Office rejected Claims 26-28 under 35 U.S.C. §102(b) as being anticipated by *Kinzenbaw et al.* (U.S. Patent No. 5,346,019). Further, the Patent Office rejected Claims 1-4, 6 and 8-14 under 35 U.S.C. §103(a) as being unpatentable over *Foley et al.* (U.S. Patent No. 5,363,924) in view of *McDaniel, Jr.* (U.S. Patent No. 3,604,378). In addition, Claim 29 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Kinzenbaw et al.* in view of *Taylor et al.* (U.S. Patent No. 4,725,068).

By the present Amendment, Applicant amended Claims 1, 10 and 26-29. Applicant submits that the amended claims overcome the rejections made by the Patent Office and place the application in condition for allowance. Notice to that effect is requested.

Applicant notes with appreciation that the Patent Office indicated that Claims 5 and 7 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Applicant added Claims 30 and 31 incorporating the limitations of Claim 5 into Claim 1, and Claim 7 into Claim 1, respectively. Applicant, therefore, submits that Claims 30 and 31 are allowable. Notice to that effect is requested.

In the Office Action, Claims 26-28 were rejected under 35

U.S.C. §102(b) as being anticipated by *Kinzenbaw et al.* (U.S. Patent No. 5,346,019). The Patent Office alleges that *Kinzenbaw et al.* disclose "an apparatus for separating soil having all of Applicant's claimed structure including a pillar, column, liner and plates retaining the liner."

However, Claims 26-28, as amended, each define features not disclosed by *Kinzenbaw et al.* More specifically, independent Claim 26 was amended to require an apparatus for separating soil having a frame having a length defined between a first end and a second end. A controller is associated with a cylinder wherein the controller is remote from the frame and controls movement of the frame wherein the cylinder raises the first end of the frame and simultaneously lowers the second end of the frame.

Kinzenbaw et al. do not disclose a frame wherein a cylinder raises a first end of the frame and simultaneously lowers a second end of the frame. In *Kinzenbaw et al.*, when the first end of the frame is raised, the second end of the frame is also raised.

Independent Claim 27 was amended to require a frame having a body defining a plane. A cylinder is associated with the frame wherein the cylinder moves the frame wherein movement of the first set of discs toward the soil causes movement of the second set of discs away from the soil.

However, in *Kinzenbaw et al.*, the discs at the first end and the second end of the frame are raised or lowered collectively.

Independent Claim 28 was amended to require a frame and a plurality of discs attached to the frame. Tires are associated with the frame wherein the tires are positioned between the frame and the soil wherein the discs are positioned on opposite sides of the tires. A pillar is associated with the frame wherein the pillar has a liner within the pillar. Further, a front cylinder is positioned on the frame wherein the front cylinder moves to adjust the frame and discs relative to the soil and wherein the tires remain in contact with the soil independent of a position of the discs.

However, in *Kinzenbaw et al.*, when the discs are raised away from the soil by the cylinder, the tires are also raised away from the soil.

Under 35 U.S.C. §102(b), anticipation requires that a single reference disclose each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986).

Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial" and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

Because *Kinzenbaw et al.* fails to disclose each and every element of independent Claims 26-28, as amended, the rejection of

these claims under 35 U.S.C. §102(b) is improper and should be withdrawn. Notice to that effect is requested.

The Patent Office rejected Claims 1-4, 6 and 8-14 under 35 U.S.C. §103(a) as being unpatentable over *Foley et al.* (U.S. Patent No. 5,363,924) in view of *McDaniel, Jr.* (U.S. Patent No. 3,604,378). In the Office Action, the Patent Office alleged:

Foley et al. discloses an apparatus for separating soil including a frame, a cylinder 60, a plurality of discs (not shown but inherently used in grain drills), a hitch (54) and a controller associated with the cylinder wherein the controller is remote from the frame and controls movement of the frame. Concerning claims 3 & 4, member 48 is considered a pillar, with member 28 considered a column, and the inside surface of member 48 considered a liner. Concerning the claimed method steps, given the structure of *Foley et al.*, the claimed method steps would be inherently performed when using the device of *Foley et al.* Concerning claim 9, the wheels that the shown tires are mounted on are considered plugs.

The Patent Office further alleges that "*McDaniel, Jr.* teaches that it is notoriously old and well known in the agricultural arts for agricultural devices such as planters to use cultivating discs that are aligned on and attached to an axle."

However, independent Claim 1 as amended requires a frame and an axle associated with the frame. A cylinder is associated with the frame. In addition, a controller is associated with the cylinder wherein the controller is remote from the frame and controls movement of the frame wherein the frame pivots with respect to the axle.

Further, independent Claim 10 was amended to require a method

for dividing soil requiring a frame wherein an axle is attached to the frame. A cylinder is associated with the frame. Movement of the frame is controlled remotely by the cylinder wherein movement of the first end toward the soil pivots the frame with respect to the axle and causes movement of the second end away from the soil.

Neither *Foley et al.* nor *McDaniel, Jr.*, taken singly or in combination, teach or suggest a frame which pivots with respect to an axle which is attached to the frame. Moreover, neither reference teach or suggest a frame having a first end and a second end wherein movement of the first end toward the soil causes movement of the second end away from the soil.

In *Foley et al.*, when the first end of the frame is raised, the second end is also raised. *McDaniel, Jr.* provides an axle below the frame; however, the frame in *McDaniel, Jr.* does not pivot with respect to the axle. Applicant asserts that the combination of these references would not provide each and every element of Applicant's invention as defined in independent Claims 1 and 10.

Moreover, Applicant asserts that no motivation exists for the combination of *Foley et al.* and *McDaniel, Jr.* By the admission of the Patent Office, *Foley et al.* do not teach the use of discs. Applicant asserts that if, as alleged by the Patent Office, *McDaniel, Jr.* teaches that it is notoriously old and well known to use cultivating discs that are aligned on and attached to an axle, then by not explicitly referring to discs attached to a frame,

Foley et al., which issued 23 years after *McDaniel, Jr.* teaches away from the attachment of discs to the frame. Thus, Applicant asserts that no motivation exists for the combination of *Foley et al.* and *McDaniel, Jr.*

It is submitted that the question under §103 is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the references in their entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

It is insufficient that the art disclosed components of Applicant's invention, either separately or used in other combinations. A teaching, suggestion, or incentive must exist to make the combination made by Applicant. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1988).

In view of the foregoing remarks and amendments, Applicant respectfully submits the rejections of Claims 1 and 10 under 35 U.S.C. §103(a) have been overcome and should be withdrawn. Notice

to that effect is requested.

In the Office Action, Claim 29 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Kinzenbaw et al.* in view of *Taylor et al.* (U.S. Patent No. 4,725,068). The Patent Office alleges that *Kinzenbaw et al.* disclose Applicant's invention including a hitch; however, *Kinzenbaw et al.* do not disclose a connector that rotates 360 degrees used with the hitch. The Patent Office alleges that *Taylor et al.* teach the use of a pin to connect a frame to a tow vehicle wherein the pin provides a connection which may rotate 360 degrees.

However, Claim 29, as amended, requires a frame and a plurality of discs attached to the frame. In addition, one or more pillars are associated with the frame wherein each of the pillars has a body defined between a first end and a second end and further wherein each of the pillars has a liner within the pillar. Plates are attached to the first end and the second end of each of the pillars.

Kinzenbaw et al. merely teach a frame having a single pillar along which the frame is raised or lowered. *Taylor et al.* merely teach the use of a pin to connect a frame to a tow vehicle. Neither *Kinzenbaw et al.* nor *Taylor et al.*, taken singly or in combination, teach or suggest one or more pillars associated with a frame.

As stated previously, it is submitted that the question under §103 is whether the totality of the art would collectively suggest

the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the references in their entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

It is insufficient that the art disclosed components of Applicant's invention, either separately or used in other combinations. A teaching, suggestion, or incentive must exist to make the combination made by Applicant. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1988)

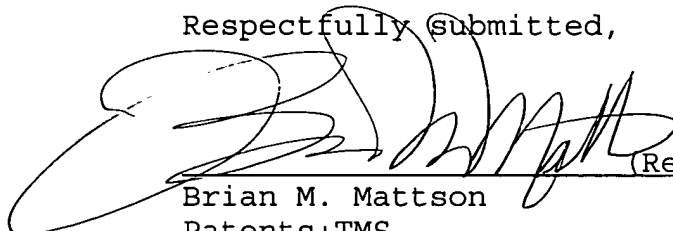
Therefore, Applicant asserts that the rejection of Claim 29 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

Claims 2-9 depend from Claim 1 and Claims 11-14 depend from Claim 10. These claims are further believed allowable over the references of record for the same reasons set forth with respect to their parent claims since each sets forth additional structural elements and novel steps of Applicant's hydraulic disc/harrow apparatus and method for using the same, respectively.

In view of the foregoing remarks and amendments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is now in condition for allowance. Further, Applicant submits that neither further search nor consideration would be necessitated by entry of this Amendment; therefore, entry of this Amendment is proper and should be effected.

If, however, any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant requests the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

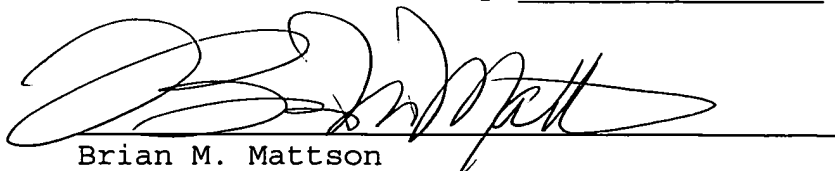


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CERTIFICATE OF MAILING

I hereby certify that this **Amendment After Final** is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 06, 2003.



Brian M. Mattson

VERSION WITH MARKS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend Claim 1 as follows:

1. An apparatus for separating soil, the apparatus comprising:

a frame;

an axle associated with the frame;

a cylinder associated with the frame;

discs attached to the frame wherein the discs are aligned on and attached to the axle between the frame and the soil and further wherein the discs rotate upon contact with the soil; and

a controller associated with the cylinder wherein the controller is remote from the frame and controls movement of the frame such that the discs are moved with the frame and wherein the frame pivots with respect to the axle.

Please amend Claim 10 as follows:

10. A method for dividing soil, the method comprising the steps of:

providing a frame having a first end and a second end;

attaching an axle to the frame;

providing a cylinder associated with the frame;

connecting the frame to a vehicle;

moving the frame by remotely controlling movement of the cylinder wherein movement of the first end toward the soil pivots the frame with respect to the axle and causes movement of the second end away from the soil; and

pulling the frame over the soil.

Please amend Claim 26 as follows:

26. An apparatus for separating soil, the apparatus comprising:
a frame having a length defined between a first end and a second end;

a cylinder associated with the frame;

a plurality of discs attached to the frame wherein the cylinder moves the frame;

a controller associated with the cylinder wherein the controller is remote from the frame and controls movement of the frame wherein the cylinder raises the first end of the frame and simultaneously lowers the second end;

a pillar associated with the frame;

a column inside the pillar;

a liner between the pillar and the column; and
plates retaining the liner within the pillar.

Please amend Claim 27 as follows:

27. An apparatus for separating soil, the apparatus comprising:
a frame having a length defined between a first end and a second end;

a plurality of discs attached to the frame wherein a first set of discs are attached to the frame at the first end and a second set of discs are attached to the frame at the second end;

a pillar associated with the frame wherein the pillar has a liner within the pillar;

a column within the pillar wherein the liner is positioned

between the column and the pillar; and

a cylinder associated with the frame wherein the cylinder moves the pillar relative to the column and further wherein the cylinder pivots the frame wherein movement of the first set of discs toward the soil causes movement of the second set of discs away from the soil.

Please amend Claim 28 as follows:

28. An apparatus for separating soil, the apparatus comprising:

a frame;

a plurality of discs attached to the frame;

tires associated with the frame wherein the tires are positioned between the frame and the soil and wherein the discs are positioned on opposite sides of the tires;

a pillar associated with the frame wherein the pillar has a liner within the pillar; and

a front cylinder positioned on the frame wherein the front cylinder moves to adjust the frame and discs relative to the soil and wherein the tires remain in contact with the soil independent of a position of the discs.

Please amend Claim 29 as follows:

29. An apparatus for separating soil, the apparatus comprising:

a frame;

a plurality of discs attached to the frame;

[a] one or more [pillar] pillars associated with the frame wherein each of the [pillar] pillars has a body defined between a first end and a second end and further wherein each of the [pillar]

pillars has a liner within each of the [pillar] pillars;

plates attached to the first end and the second end of each of the [pillar] pillars; and

a hitch having a length defined between an end and a connector wherein the end of the hitch is attachable to the frame and wherein the connector rotates 360 degrees.